



GstGMC2.0

Graphic Monitor Center



User's Manual

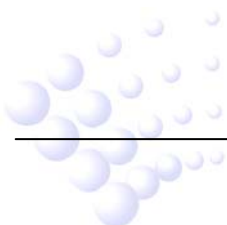
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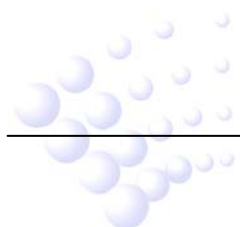


Chapter 1 Overview

GSTGMC2.0 Graphic Monitor Centre is a newly developed fire alarm system monitoring software. With friendly interface, the software may support 8 remote client stations plus local monitor station, making complete monitoring and control. Also with OLE for Process Control (OPC), the communication with fire alarm control panel (FACP) can also be integrated into other systems. The related FACP types include GST200, GST500 & GST5000.

The main features of this highly intelligent package are:

- ✧ The self-reacting communication module automatically maintains data communication with FACP. The operator can test the communication at any time to ensure the reliable running of system.
- ✧ The communication server connects to the FACP directly. The monitor stations can be set locally or through LAN or even through WAN.
- ✧ Multi-level password control.
- ✧ Simple, direct and complete user graphics view interface, switching between device layouts of different monitoring zones.
- ✧ Pop out layout of abnormal information automatically. Flash the abnormal device(s) in different colours for alarm, action, fault and disable.
- ✧ Complete functions of database management and data backup ensure system safety by minimizing possibility of data loss.
- ✧ Supporting multi-languages. The language displayed is the same with that of the operating system.



Chapter 2 System Requirement

2.1 Hardware

CPU: Pentium III 1G or above

Minimum free Hard disk: 2GB

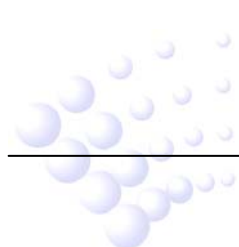
Memory: 256M or above

2.2 Software

Windows 98SE, Windows 2000 or Windows XP Professional (IE6.0 or above)

2.3 Configuration

The complete system includes FACP (or FACP network), RS232 communication card connecting to FACP, local computer connecting with RS232 card (by serial port), remote computer (optional, Maximum 8) through LAN or WAN.



Chapter 3 Installation

The software setup file is named setup.exe. Double click the file and follow the instruction.

After installation, there will be 3 (three) allocations (Fig. 1).



Fig. 3-1

GstGMC2.0 Graphic Designer is for designing the graphic layout, installed on the local computer only.

GstGMC2.0 Server is the communication server, installed on the local computer only. This application should be always started.

GstGMC2.0 Client is the monitor software, installed to all monitor stations (including local computer). The stations will log onto the server under password control.

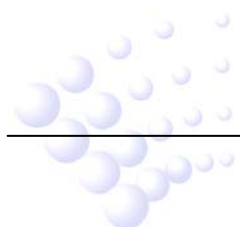
The server configuration requires a Register Code to setup monitor stations. When it is started the first time, a window will pop out as below:



Fig. 3-2

Send the <User Code> to GST, and inform how many monitor stations required. GST will create the <Register Code>. Input the code to the blank and click <Register>, the software will start.

For uninstalling the software, you can run the setup program again, choose "Remove" in the screen in Fig. 3, and then click "Next".



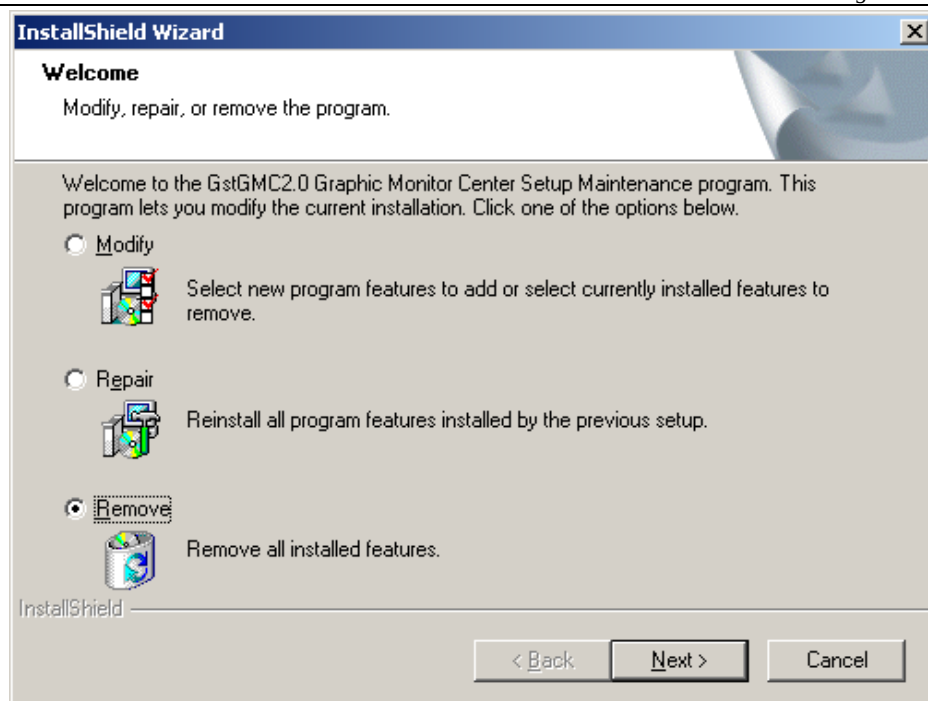
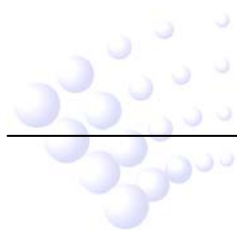


Fig. 3-3



Chapter 4 Graphic Designer

GstGMC2.0 Graphic Designer is for designing the graphic layout of devices in a system, so that the user can have an idea of the layout of system devices and quickly locate any off-normal event like fire alarm, fault and action. You can use the buttons in the toolbar to setup, modify or delete a project, a zone or a device, and design a graphic plan of the project. The main screen of GstGMC2.0 Graphic Designer is shown in Fig. 4-1.

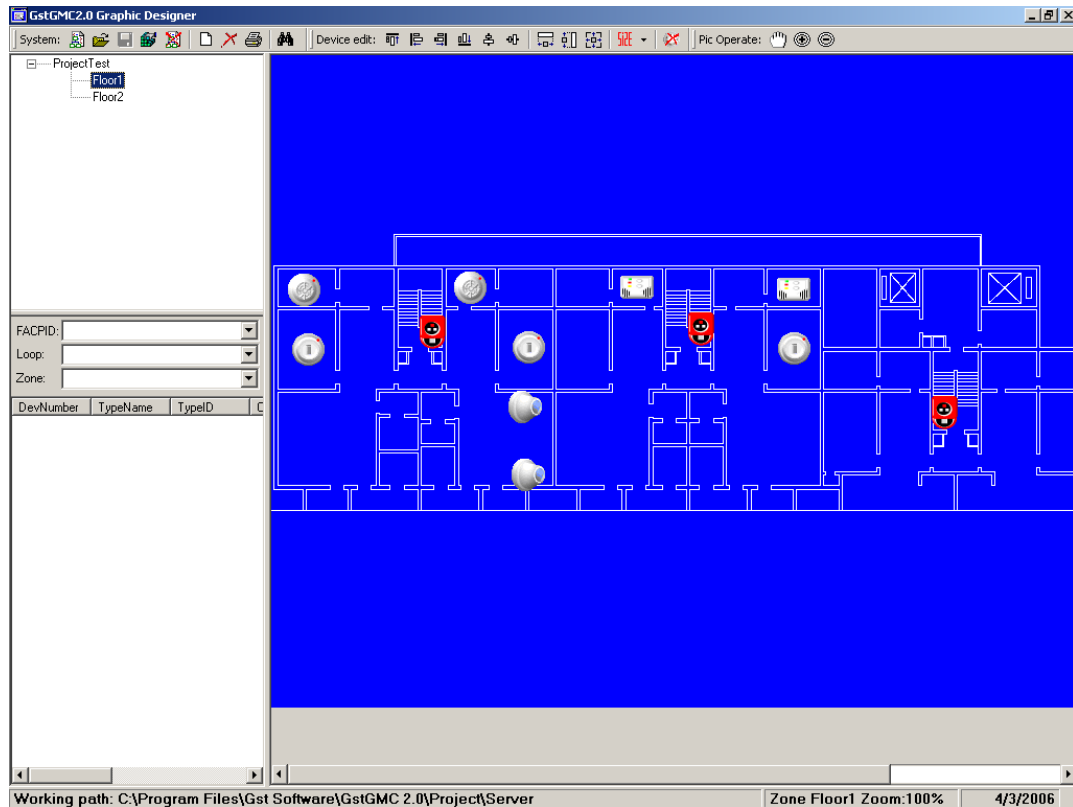


Fig. 4-1

4.1 Project/Zone Operations

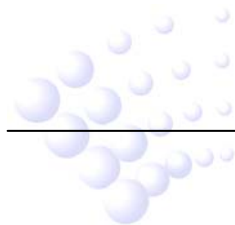
The buttons in the “System” section are used for operations on a project or zone.



Fig. 4-2

4.1.1 Creating New Project

Clicking this button, the following dialogue box will appear.



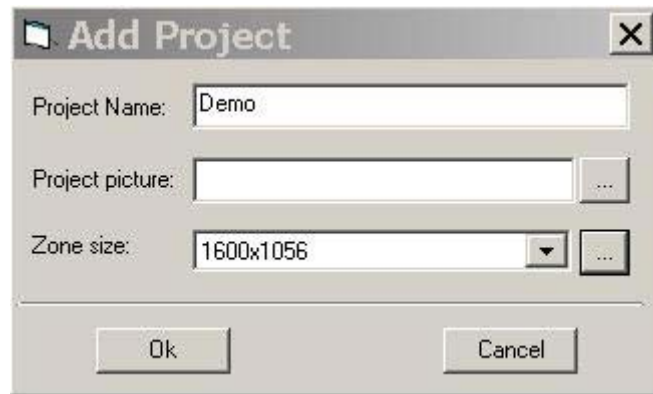


Fig. 4-3

<Project Name>: input the title of the project.

<Project picture>: insert the building outlook photo (optional).

<Zone size>: The size of zones of a project is automatically setup by the software according to the screen resolution on first running. It can be changed manually by click right side button. The size should suite the screen resolution.

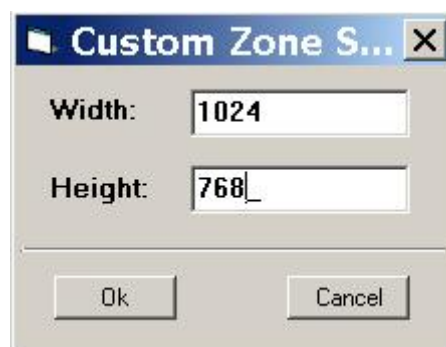
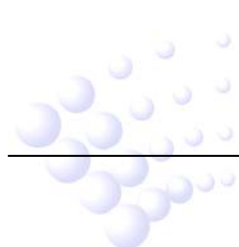


Fig. 4-4

4.1.2 Opening Existing Project

If you want to modify an existing project, pressing this icon, a dialogue box for opening file will appear. The file name is config.xml.



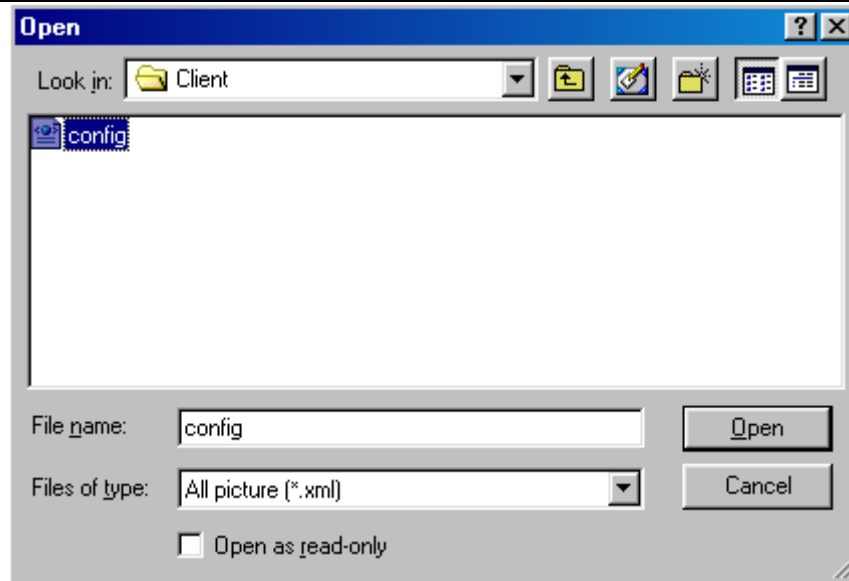


Fig. 4-5

4.1.3 Save

The user can save currently working project.

4.1.4 Issuing the project

The current working database is saved into a separate project folder, named as the <Project name>. The Server simultaneously can work with only one database, which is saved in <Project\Server> folder. The "Issue" operation will copy all related files including background pictures into the <Project\Server> folder to synchronize the monitor database and definition database.

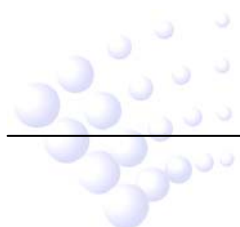
The "Issue" operation should be done after finishing the complete design, and any modification done to the system, including device definition modification under <defining Tool>.

4.1.5 Deleting Project

Pressing this button will delete database of the selected project.

4.1.6 Creating a zone

You can define the logical layout (by floor or zone) of devices in the system after the project is setup. Pressing the  button, a dialogue box as in Fig. 4-6 for adding a zone will pop up:



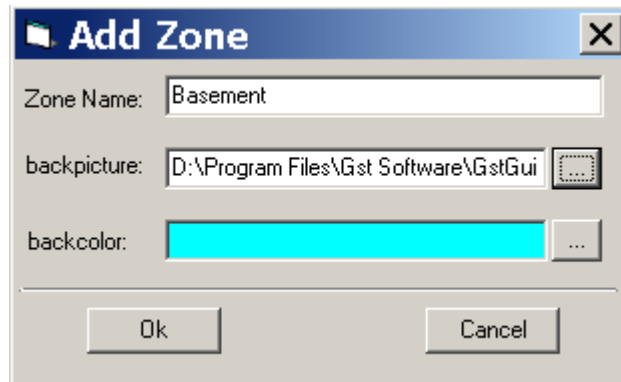


Fig. 4-6

<Zone Name>: Name of the zone.

<Backpicture>: The background picture can be any type of popular picture type, normally converted from AutoCAD project drawing. The picture size should fit the screen resolution (Fig. 4-7).

<Backcolor>: Defining the background color of this zone to make device icon distinguished from the background picture of the project.

In normal monitor status, the Graphic Monitor will display all pictures of each zone in turn. In case of abnormal, the front page will show the information located zone.

The zone name will be displayed at the bottom of each page when rolling.

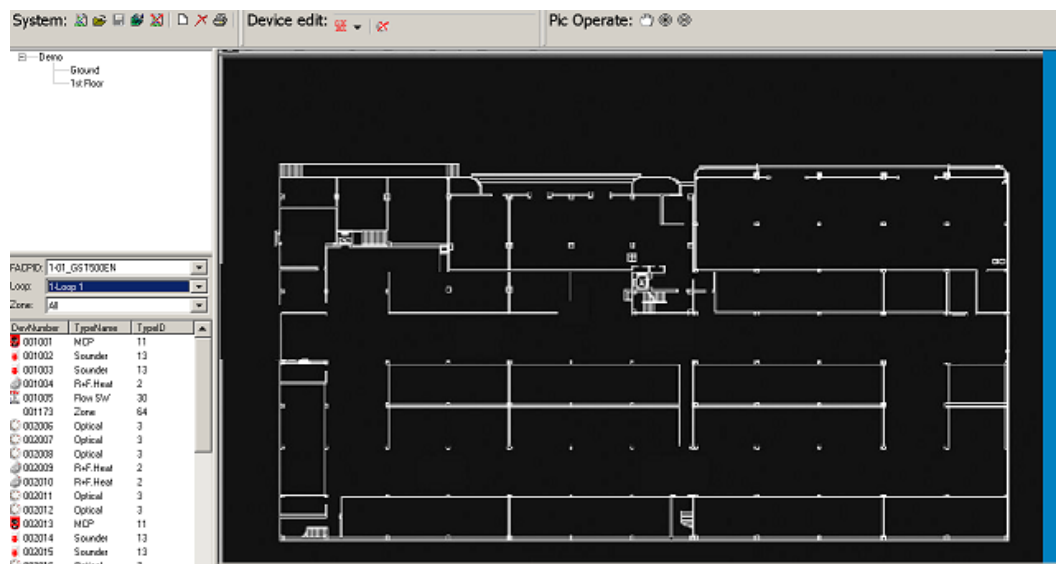
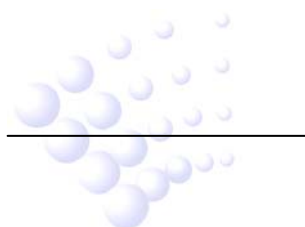


Fig. 4-7

4.1.7 Delete a zone



Pressing this button will delete a selected zone from current project. The devices already set into this zone will return back to device list.



4.1.8 Print a zone

The current zone background picture and all devices' icons will be printed out.

4.1.9 Search a device

This is to help finding a device from big project, easy to modify or replace. Pressing this button, the system will pop up a dialogue as shown in Fig. 4-8. Input a 6-digit device number, the system will locate the device and make it selected. If there is duplicate device number, you can continue to press "Find" button.

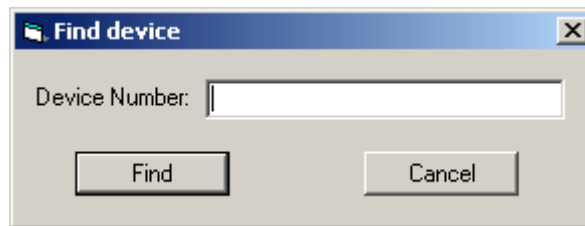


Fig. 4-8

4.2 Device Operations

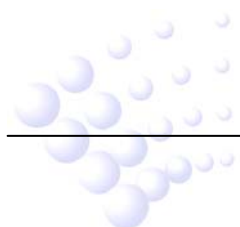
The buttons in the "Device edit" section are used for operations on a single device.



Fig. 4-8

4.2.1 Device List

By choosing FACPID, Loop and Zone on the left middle part of the main screen of Graphic Designer, the left bottom will show all defined devices arranged into the specific loop and zone of a FACP (Fig. 4-9).



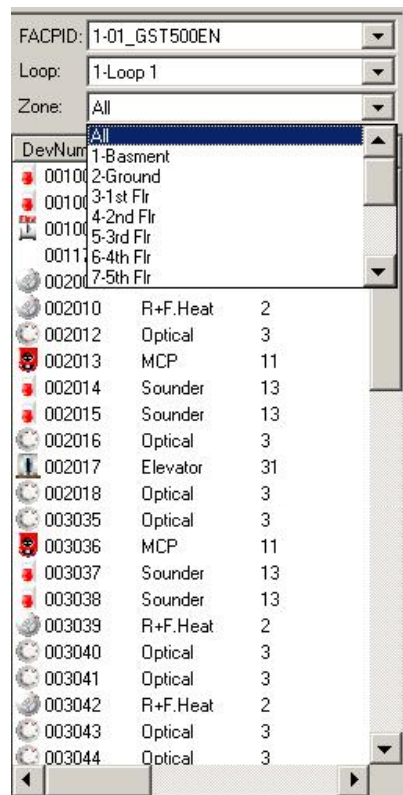


Fig. 4-9

After all zones are defined, the user can layout the devices of each zone by simply dragging it from the list on the left to the correct position of the zone, as in Fig. 4-7.

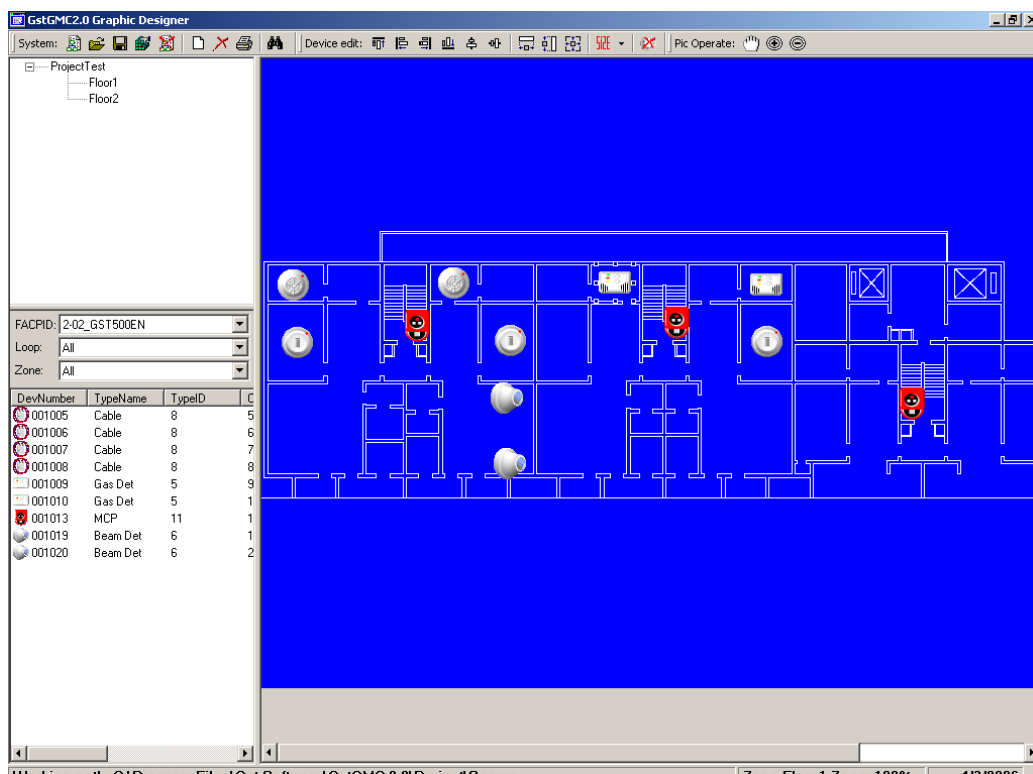


Fig. 4-10

4.2.2 Showing device message

By default, the device information is not showing in the graphic.

Right-click on the picture, select <Show device message>. Then anytime the mouse points on a device, the information of the device will be shown (Fig. 4-11, 4-12).



Fig. 4-11

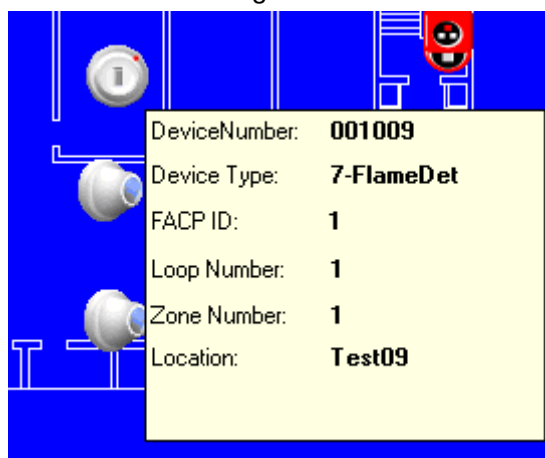


Fig. 4-12

Right-click on the background again then can switch off the automatic showing.

4.2.3 Device Size

4.2.3.1 Setting the size manually

Drop down the arrow beside <size> button.

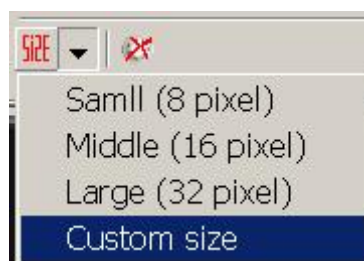


Fig. 4-13

The size is default set at large icon (32 pixels). Select the ideal size for the screen resolution. Also a Customized size can be input.

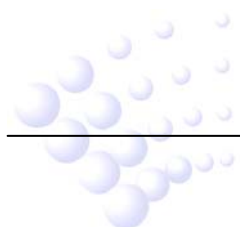




Fig. 4-14

4.2.3.2 Resizing a Group of Devices

Select a group of devices by mouse, either by left-button-draw or using <Shift>+Left-click. Then click on the wanted operation (same width, same height or same width & height) changing all selected devices to same size.

4.2.4 Align Devices

Normally by manually moving, the devices will not appear in good alignment. These buttons will help to make easy alignment by top, bottom, left, right, central in vertical or middle in horizontal.

4.2.5 Delete a Device

Clicking this button can delete the selected device logo from the current page. The device will be back to the list.

4.3 Picture Operation

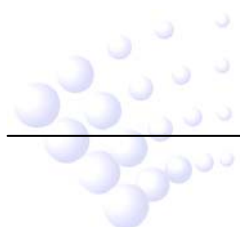


Fig. 4-15

Zoom IN, Zoom OUT and moving the background picture to find the correct location.

4.4 Complete Procedure for Graphic Designer

- 1 Define system text by *GstDef2.0 Defining Tool*, leave the project as current working system. Please refer to *GSTDef2.0 Defining Tool User Guide*.
- 2 Prepare background pictures for each zone.
- 3 Add new project.
- 4 Add zones.
- 5 Place all devices into correct positions.
- 6 Synchronize the database by "Issue". NOTE: anytime after modifying the device definition and graphic design, the "Issue" operation must be taken out.



Chapter 5 GstGMC2.0 Server

After the software is registered, the GstGMC2.0 Server window as shown below will pop out.

GstGMC2.0 Server is the core of the whole monitoring system, where FACPs are configured, graphic system layout of a project is designed and data are collected and transmitted to clients.

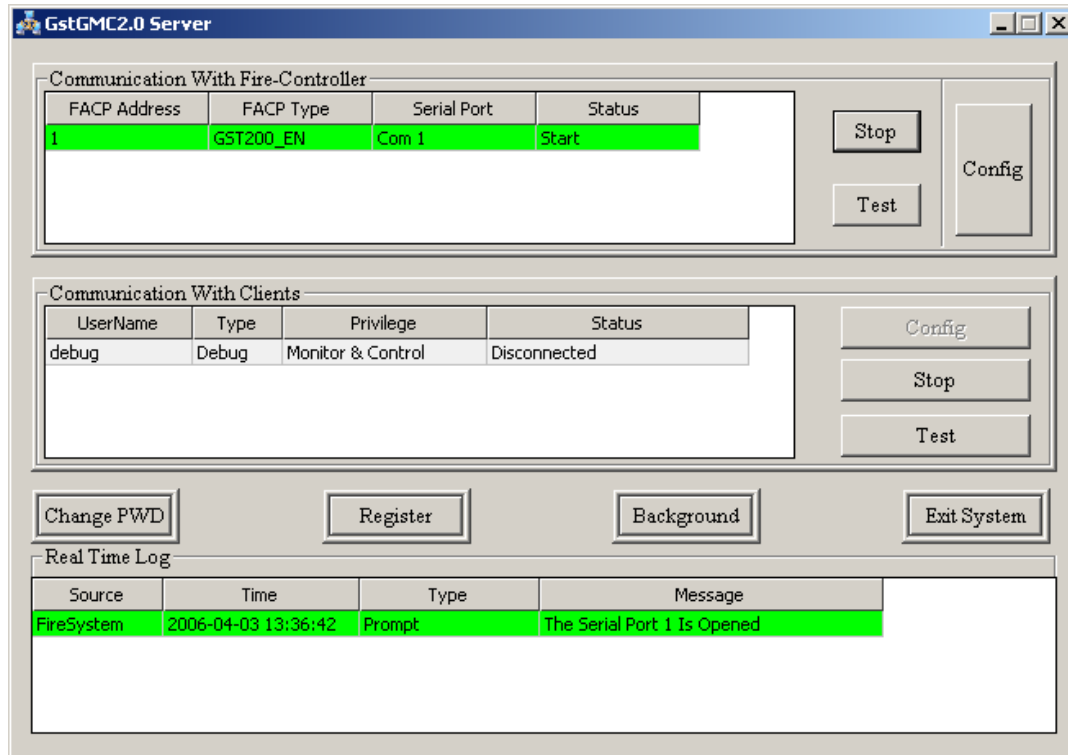


Fig. 5-1

5.1 Functional Buttons

<Change PWD> Modify the operating password

<Register> Input register code for modifying features like change the clients quantity.

<Background> Will close the current window. Server will work at background as a logo .

<Exit System> Will stop all communications and exit. All other clients will also stop communication.

Setting Password

There was no password set initially. You can set the password by <Change PWD>.

Clicking this button, the following dialogue window will show.



Fig. 5-2

Clicking <OK>, the system will pop out a dialogue box for confirm the password.



Fig. 5-3

Inputting the new password twice to confirm and clicking <OK>, the password will become valid. The same procedure is also used for modifying the password.

5.2 Panel Configuration

5.2.1 Configuring Panels

Before configuration, communication with FACPs must be stopped. Clicking on <Config> at the right side of "Communication With Fire-controller" and inputting password, the system will pop out a window as shown in Fig. 5-4.

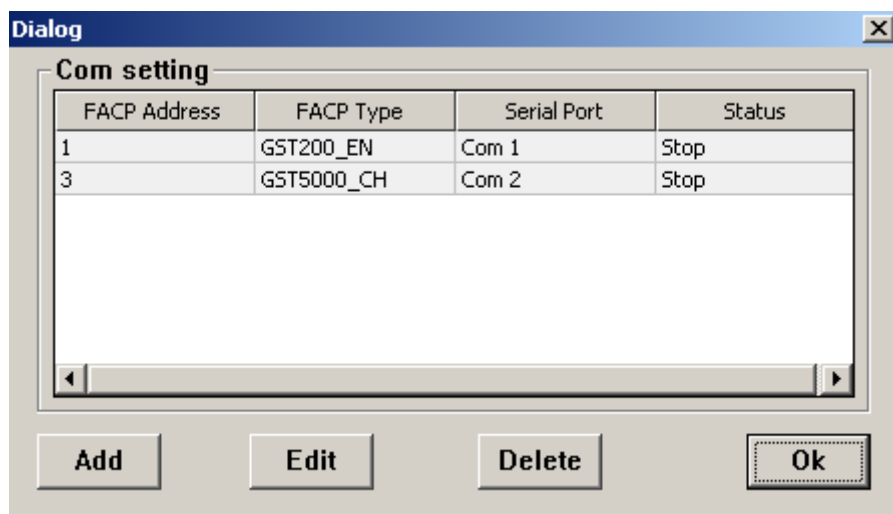


Fig. 5-4

You can add new panel(s) or edit/delete existing panel(s) in this dialog box. Here is an

example for adding new.

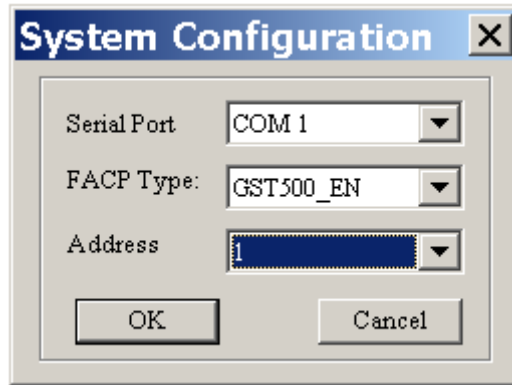


Fig. 5-5

The parameters should be set correctly.

<Serial Port>: Select the serial port used connecting with the FACP.

<FACP Type>: The panel type should be correct.

<Address>: Address should be same with the panel setting.

For details of the panel settings, please refer to *GSTDef2.0 Defining Tool User Guide*.

After setup, select the correct panel to <Start>.

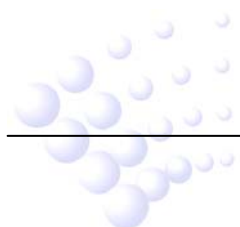
5.2.2 Starting and Stopping Communication

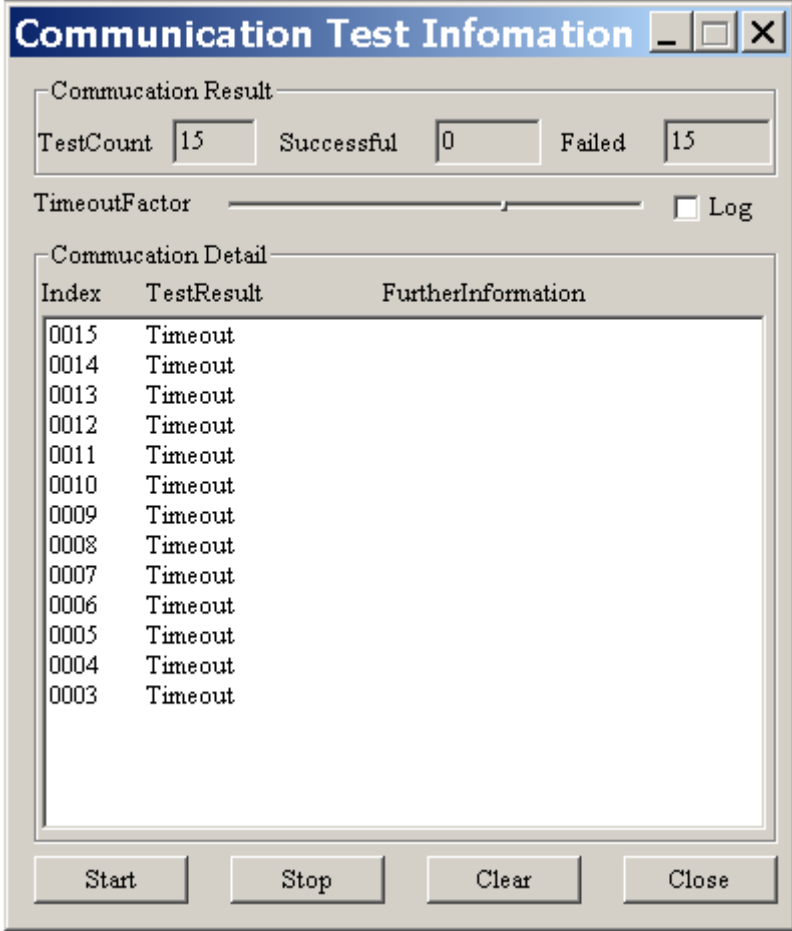
The start and stop operation share the same button on the right side. After you have configured communication with the FACP, pressing this button, communication with this FACP will start, and the displayed name of this button changes to *Stop*.

Choosing a FACP, clicking this button and inputting correct password, communication with this FACP will stop, and the displayed name of this button changes to *Start* again.

5.2.3 Communication Test

A communication test can be done to check the communication with the FACP. Pressing *Test*, a testing window as in Fig. 5-6 will show, which will display the messages transmitted from the FACP.





The dialog box titled "Communication Test Information" contains the following elements:

- Communication Result** section with three input fields: "TestCount" (15), "Successful" (0), and "Failed" (15).
- A "TimeoutFactor" slider and a "Log" checkbox.
- Communication Detail** section containing a table with three columns: "Index", "TestResult", and "FurtherInformation".
- At the bottom, four buttons: "Start", "Stop", "Clear", and "Close".

Index	TestResult	FurtherInformation
0015	Timeout	
0014	Timeout	
0013	Timeout	
0012	Timeout	
0011	Timeout	
0010	Timeout	
0009	Timeout	
0008	Timeout	
0007	Timeout	
0006	Timeout	
0005	Timeout	
0004	Timeout	
0003	Timeout	

Fig. 5-6

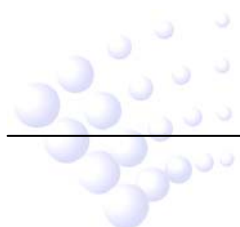
The <Start>, <Stop> & <Config> operations need password. Only when all panels stopped, can the configuration be done.

5.3 Client Configuration

Client means the monitoring computer communicating with the server. In the server software is called USER.

5.3.1 Configuring Clients

Clicking <Config> at the right side of "Communication With Client" and inputting password, the system will pop out a dialogue box as in the following figure (this operation must be done when communications with all clients are stopped).



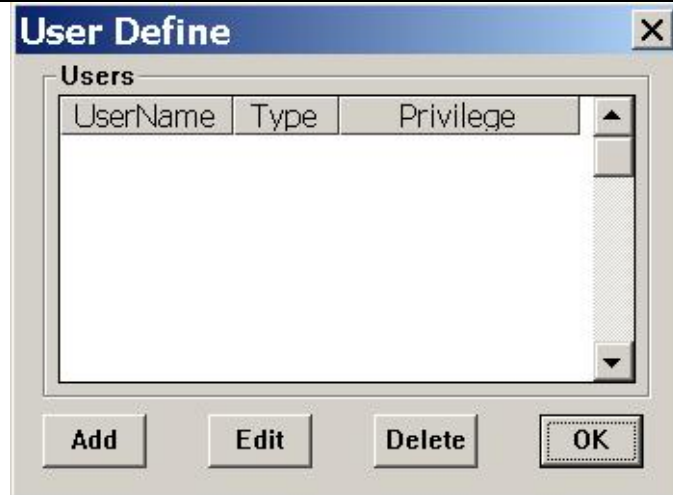


Fig. 5-7

You can add new user(s) or edit/delete existing panel(s) in this dialog box. Here is an example for adding new.

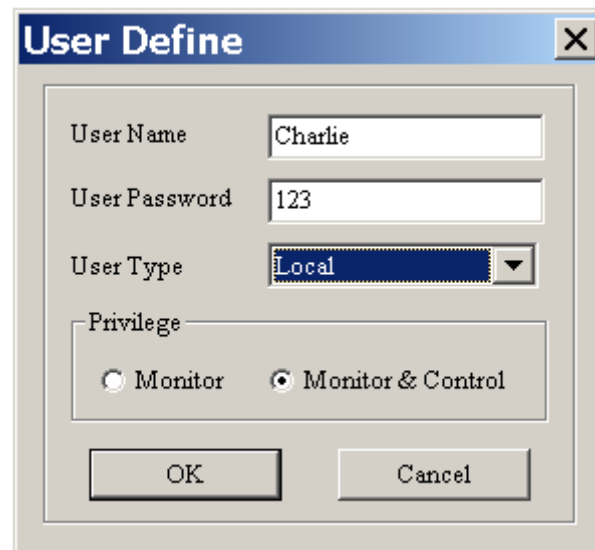


Fig. 5-8

<User Name>: User name for log in.

<User Password>: Log in password.

<User Type>: There are 4 types for selecting.

- ✧ **Local**: means the client software is installed on the same computer of the server.
- ✧ **Remote**: means client software is installed on another computer. The communication can be LAN or WAN.
- ✧ **GstOPC**: is the OPC user who integrates the monitoring information of the server into other systems.
- ✧ **GSTAPI**: is the user of GSTAPI Interface who integrates the monitoring information via this interface.

<Privilege>: Authorization to the users. For clients only has Monitor privilege, it can only monitor the messages, while Monitor&Control authorizes the user to operate on the FACP and devices.

5.3.2 Clients control

On the server, each client can be controlled individually, start or stop the communication. The stopped client(s) will not be possible to log on and communicate.

The log on password is only modified on the server.

5.3.3 Client Test

A communication test can be done to check the communication with the client. Pressing <Test>, a testing message as in Fig. 5-9 will show. Clicking <Send to All Users> will send this message to all users.



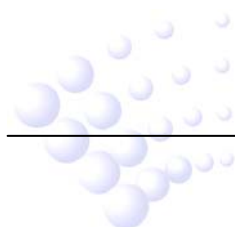
Fig. 5-9

5.4 Status Monitor

At the bottom of the window shows system operating history log with time and date for real time monitoring system status.

Real Time Log			
Source	Time	Type	Message
FireSyster	2006-05-02 10	Prompt	The Serial Port 1 Is Closed
FireSyster	2006-05-02 10	Prompt	The Serial Port 1 Is Opened
FireSyster	2006-05-02 10:23:14	bt	The Serial Port 1 Is Closed

Fig. 5-10



Chapter 6 GstGMC2.0 Client

6.1 Login



Fig. 6-1

The Login box will come out when starting the GstGMC2.0 Client.

If the client software installed on the same computer of the server, the <Server> should be "localhost". If the computer connecting through LAN or WAN, you need to input the server IP address here.

Input the correct user name and password then click <Login>. The client will communicate with the server and automatically download the database update to local folder. If the client is first time started, it will download the complete database.



Fig. 6-2

On the server, the client status will be changed (Fig. 6-3).

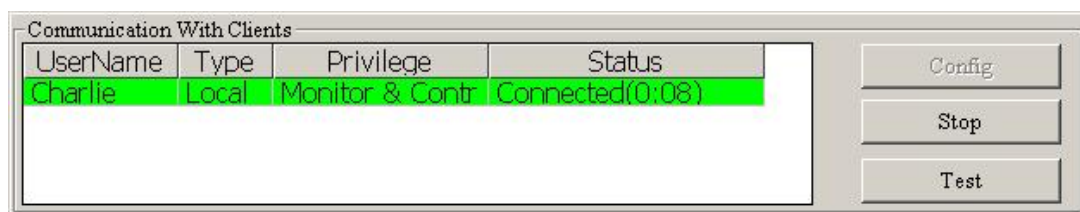
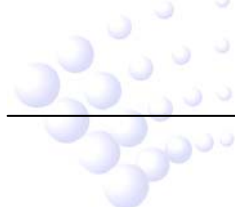


Fig. 6-3

6.2 Display on the Client

6.2.1 Overview

The main screen of Client is shown in Fig. 6-4.



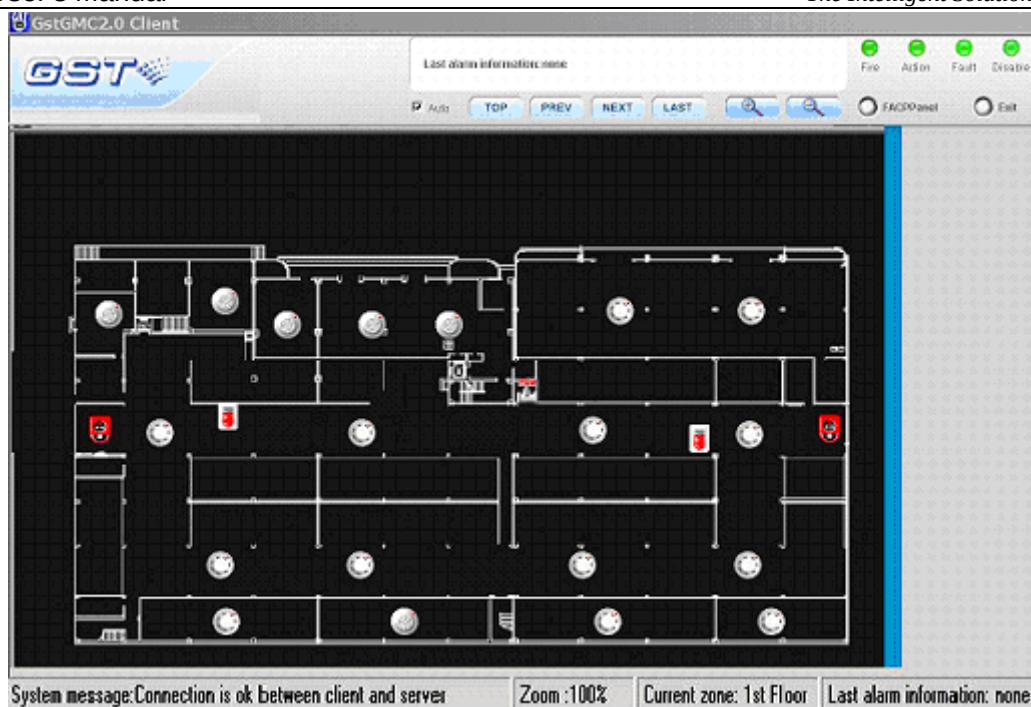


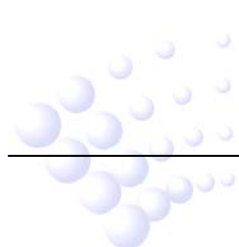
Fig. 6-4

After successfully log on, the client will display the layouts page by page automatically. The system condition will be shown at the bottom.

6.2.2 Information

The abnormal conditions of the FACP will be shown by the indicators with different colors. Green means normal. The last ALARM message will be shown on the top-centre.

Right-clicking on the zone layout and selecting <Show exception window>, the window for all abnormal information will pop out.



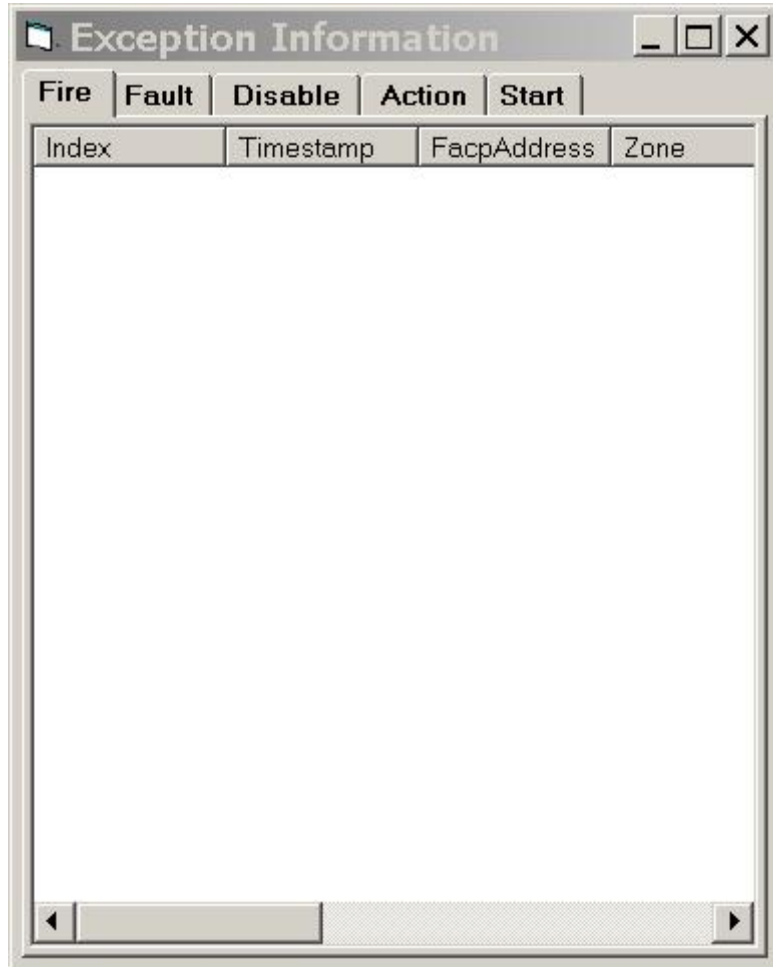


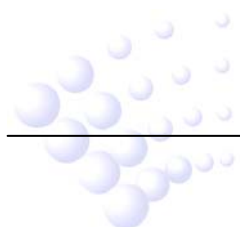
Fig. 6-5

6.2.3 Auto/Manual Mode for Viewing Pages

On top of the screen there is a tick box for choosing automatically or manually display zone pages. The system defaults to display zone layout automatically by rolling pages. Ticking off the "Auto" option, you can view the zone layouts manually using the buttons TOP, PREV, NEXT and LAST (Fig. 6-6). Or, you can right-click the layout, a menu as in Fig. 6-7, options for viewing different pages will show, where "Lock zone" means manual viewing.



Fig. 6-6



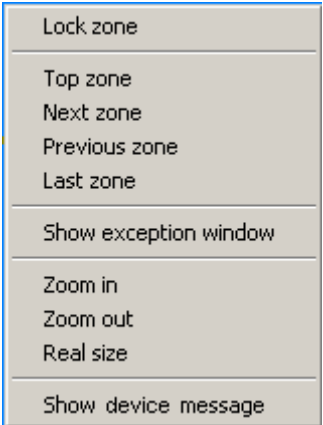


Fig. 6-7

6.2.4 Zoom

There are two types of operations for zooming. One is using the functional buttons (Fig. 6-8), the other is by right-click commands (Fig. 6-9), and the zoom rate is shown at the bottom of the screen.



Fig. 6-8

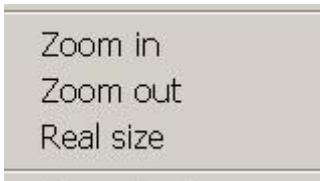
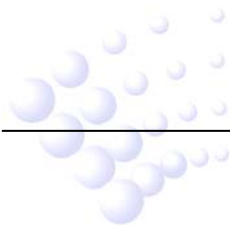


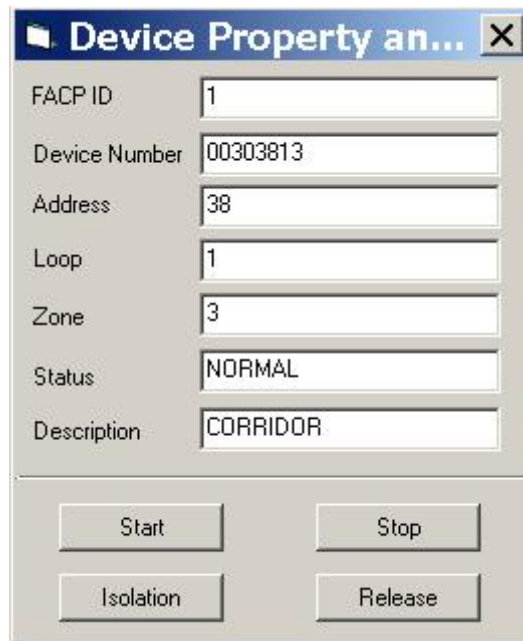
Fig. 6-9

6.2.5 Device messages

As default, the devices' message is not showing, two operations for viewing the device details.

Operation 1, right-click on the device and choose <Property> (Fig. 6-10).





A screenshot of a 'Device Property' dialog box. The dialog has a title bar with a folder icon and the text 'Device Property an...' followed by a close button (X). Inside, there are several input fields with labels on the left: 'FACP ID' with value '1', 'Device Number' with value '00303813', 'Address' with value '38', 'Loop' with value '1', 'Zone' with value '3', 'Status' with value 'NORMAL', and 'Description' with value 'CORRIDOR'. At the bottom, there are four buttons arranged in two rows: 'Start' and 'Stop' in the top row, and 'Isolation' and 'Release' in the bottom row.

FACP ID	1
Device Number	00303813
Address	38
Loop	1
Zone	3
Status	NORMAL
Description	CORRIDOR

Start Stop

Isolation Release

Fig. 6-10

Operation 2, right-click on the layout and choose <Show device message>. Then any time mouse pointing on a device, the device message will be automatically displayed (Fig. 6-11). To switch off the display, right-click on the layout and choose <Hide device message>.

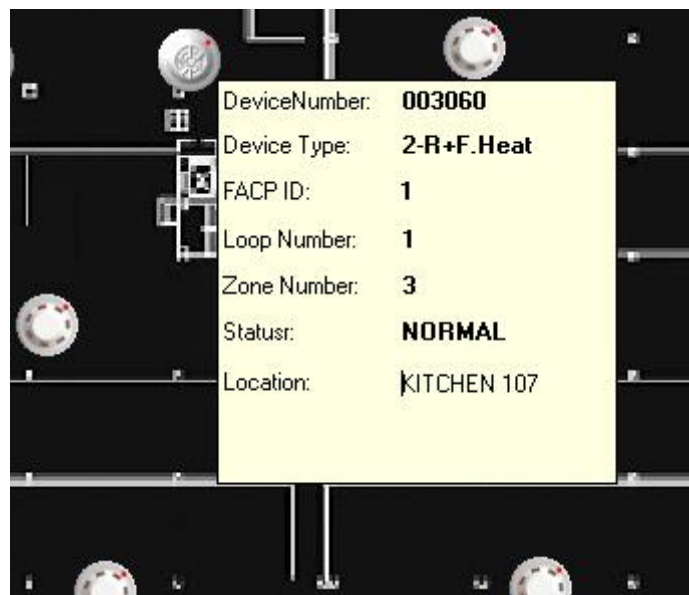
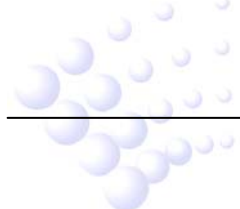


Fig. 6-11

6.3 Controls on FACP and Devices

Only authorized users can carry out the operations below. These operations require password (the Login password). After 60 seconds without operation, the system will be locked, and further operations will require password again.



6.3.1 FACP operations

Click on button <FACP Panel> and input the password, the system operation window will be popped out.



Fig. 6-12

<Reset>: Sending RESET command to reset the panel(s).

<Silence>: Sending SILENCE command to the panel stop all started sounders.

<SystemLog>: Viewing history messages. By selecting the start and end time and <Query>, all events during the period will be listed (Fig. 6-13). The events can also be printed out.



Fig. 6-13

The <Realtime Print> can be selected to enable the automatic printing feature. Any

abnormal information will be printed out immediately.

6.3.2 Device operations

The operations include start, stop, isolation (disable) and release (enable). Right-click on the device, the operations is on the command drop list (Fig. 6-14).



Fig. 6-14

The operations also can be done under device property window (Fig. 6-15).

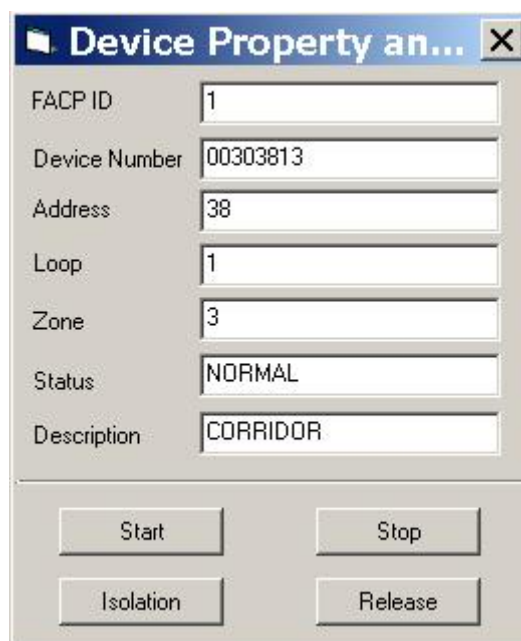
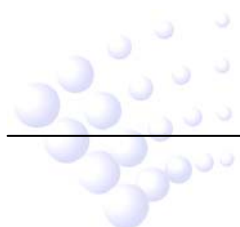


Fig. 6-15

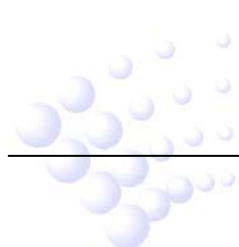
6.3.3 Exit

Clicking on the *Exit* button to quit the software. The operation requires password.



Chapter 7 Caution

- ✧ The software (server and clients) should be running at all time, to make safety fire alarm monitoring.
- ✧ The copyright of this software is reserved by the manufacturer, and protected by law. Any copy or modification without the permission of the manufacturer is prohibited.
- ✧ For integrating software developing, please contact with the technical support.
- ✧ This user guide may be updated according to product upgrading without notification!





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